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# Articles

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## The Concept of Race in *Health Services Research*: 1966 to 1990

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**Objective.** This study examined ways in which race/ethnicity has been conceptualized and used in the health services research literature as published in *Health Services Research* (HSR).

**Data Source.** All articles published in HSR from its inception in 1966 to 1990.

**Study Design.** The analyses were restricted to U.S.-based empirical research on humans or in which human population characteristics are described. This study identifies the terms used for race and/or ethnicity, the frequency with which they occur, and the purposes for which they are utilized.

**Principal Findings.** The study documents that race/ethnicity is widely used in the health services literature to stratify or adjust results and to describe the sample or population of the study. Terms used for race are seldom defined and race is frequently employed in a routine and uncritical manner to represent ill-defined social and cultural factors.

**Conclusions.** Researchers and practitioners must give more careful attention to the conceptualization and measurement of race. An understanding of racial/ethnic differences in patterns of health service utilization will require efforts to catalog and quantify the specific social and cultural factors that are differentially distributed by racial and ethnic status.

**Keywords.** Race, ethnicity, research design, research methods

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Racial and ethnic status has been shown for a long time to be an important determinant of health services utilization in the United States (McKinlay 1975; Suchman 1964; Rogler, Malgady, and Rodriguez 1989; Wenneker and Epstein 1989). Recent national surveys indicate the persistence of large differences in the quantity and quality of medical care between racial and ethnic groups (Andersen, Giachealo, and Aday 1986; Blendon et al. 1989). Blendon et al. (1989), for example, reveal that blacks are almost twice as likely as whites to receive medical care in hospital clinics, emergency rooms, and other organized health care settings, where an individual is likely to see a different provider on each visit and thus to suffer from a lack of continuity in health care. In addition, this survey also found that blacks were more

dissatisfied than whites with the quality of the medical care they received, apparently for very good reasons. In addition to spending more time in the waiting room than whites, blacks were also more likely to indicate that the seriousness of their illness or injury had not been explained, adequate information about medication had not been provided, tests or examination findings had not been discussed, and sufficient inquiry had not been made about the presenting health problem. However, the specific processes and mechanisms responsible for this pattern of differences have not been clearly delineated.

The study of racial differences in health has a long, and at times disturbing, history in the United States. Early analyses of health status differences between the races were wedded to nineteenth-century racism, as medical research was used to justify racial domination and support the prevailing ideology of racial inferiority (Kreiger 1987; Brandt 1978). Science is not value-free and research on racial differences in health is sometimes still used to obscure the social origins of disease and to support the maintenance of the status quo (Duster 1984; Kreiger and Bassett 1986).

In recent decades, the validity of the concept of race has been questioned (Lewontin 1972; Gould 1977, 1981). There is growing recognition that racial classification schemes are arbitrary and that race is more a social category than a biological one (Cooper and David 1986). The definition of racial groups has changed over time in the United States in response to changing sociopolitical conditions (Hayes-Bautista and Chapa 1987). There is a biological aspect to race but there is more genetic variation within races than between them, and racial classification schemes do not represent biological distinctiveness (Polednak 1989). Thus, it is likely that racial differences in the distribution of disease and in patterns of utilization of health services are determined more by social factors than by genetic ones.

Health researchers have also been paying more attention to the conceptualization and measurement of race (Wilkinson and King 1987; Cooper and David 1986; Jones, LaVeist, and Lillie-Blanton 1991; Miller 1987; Osborne and Feit 1992; and Williams, Lavizzo-Mourey, and Warren 1994).

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This research was supported by Grant AG-07904 from the National Institute of Aging. An earlier version was presented at the Ninth Annual Meeting of the Association for Health Services Research, Chicago, June 8, 1992.

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This growing literature suggests that both the concept of race and operationalizing that concept are problematic in contemporary health research. For example, a recent editor of the *American Journal of Public Health* indicated that in articles submitted to *AJPH*, the term ethnicity is used synonymously with race, culture, or nationality, or any combination of the three (Yankauer 1987).

For example, considerable inconsistency is found in the coding of the race and ethnicity of infants at birth and death. This inconsistency is largest for Hispanic populations (Hahn, Mulinare, and Teutsch 1992). These researchers show that coding race consistently at birth and death would lower the infant mortality rates for whites, but increase the infant mortality rates for blacks, Native Americans, Chinese, Japanese, Filipinos, and Hispanics. More generally, the categories of race and ethnicity are not consistently defined and measured by federal data collection agencies, and are not well understood by the populations questioned (Hahn 1992; Trevino 1987). Further, Hahn (1992) reveals that a substantial proportion of the American population reports different racial and ethnic identities in different surveys.

Given this growing concern over the conceptualization and measurement of race in health-related research, this article examines the ways in which race and ethnicity are used in the health services research literature as published in *Health Services Research*.

## METHODS

The domain for this analysis is the original empirical research published in *Health Services Research (HSR)* from its inception in 1966 until 1990. From the outset, several miscellaneous categories of contributions to the journal were excluded from the analysis frame. These include editorials, commentaries, feedback, viewpoints, oral histories, briefings, health data sources, and other miscellaneous opinion pieces. The exclusion of these categories leaves a total of 585 articles published in *HSR* over the 25-year period. The analyses are restricted to United States-based empirical research on humans or in which population characteristics are described. As Table 1 indicates, three categories of articles are excluded from the analyses. These are (1) methodologic papers and other empirical papers where the unit of analysis is nonhuman ( $n = 313$ ); (2) reviews and other nonempirical papers ( $n = 63$ ); and (3) studies conducted outside of the United States ( $n = 17$ ).

All of the remaining 192 articles were read and coded according to the manner and frequency of terminology referring to race or ethnicity. The 65 articles published between 1966 and 1980 were initially read and coded

Table 1:    Total Number of Articles Published in *Health Services Research*, 1966–1990, and Number of Articles Included and Excluded from the Analysis

<i>Time Period</i>	<i>All Articles</i>	<i>All Included</i>	<i>Excluded Reviews</i>	<i>Categories Non-Human</i>	<i>Non-United States</i>
1966–1970	83	16	5	61	1
1971–1975	83	14	5	62	2
1976–1980	106	35	6	59	6
1981–1985	114	31	17	65	1
1986–1990	199	96	30	66	7
Total	585	192	63	313	17

by one reviewer, and the 127 papers published between 1981 and 1990 were reviewed by another. To guard against reliability decay and to ensure uniform classification, all of the 192 articles were then examined by a third reviewer. Table 2 provides the specific terms used to identify the presence of the concept of race/ethnicity in the articles reviewed.

RESULTS

Table 3 indicates the frequency with which a term for race/ethnicity was used in *Health Services Research*. As Horgan (1986) puts it, race is one of the “standard socio-demographic-economic variables” used in the health services literature. Between 1966 and 1990 race/ethnicity was used in 63 percent (121 out of 192) of the included empirical studies. There has been some variation over time with a high of 79 percent between 1971 and 1975, and a low of 57 percent between 1976 and 1980. However, throughout the entire period race has been a highly visible variable in *HSR*.

Table 3 also indicates that racial/ethnic identifiers have been primarily used to distinguish blacks from whites. (The black/white contrast category also includes studies where the distinction is between whites and a global

Table 2:    Terms Used to Refer to the Concept of Race/Ethnicity in *Health Services Research*, 1966–1990

Race	Ethnicity
Ethnic status	Racial or ethnic group
Race or origin	Ethnic origin
Color	Racial composition
Racial and ethnic minority groups	Minority status

Table 3: Percentage of Included Empirical Studies in *Health Services Research*, 1966–1990, That Assessed Race/Ethnicity, and Characteristics of Use

<i>Time Period</i>	<i>Race/Ethnicity Included</i>	<i>Black/White Contrast Only</i>	<i>Use of Race Defined/Justified</i>
1966–1970	62.5	60.0	10.0
1971–1975	78.6	72.7	36.4
1976–1980	57.1	75.0	30.0
1981–1985	67.7	52.4	9.5
1986–1990	61.5	44.1	5.1
Total	63.0	54.5	13.2

nonwhite category.) Over the entire period, more than half (54.5 percent) of the studies that employed categories of race/ethnicity focused on the contrast between blacks and whites. However, the exclusive focus on the black/white contrast has been declining over time with a low of 44 percent during the last five-year period studied. This reflects a greater tendency in recent years to include the identification of Hispanic groups. It is instructive to note that Asian American groups are seldom mentioned even in the research published in more recent years.

At the same time there are cases where race was available on a data set but was not used in the analysis. An example of this is a recent study of Department of Veterans Affairs patients that examined clinical and demographic predictors of early readmission (Holloway, Nadendrop, and Bromberg 1990). It is noted in the methods section of this article that data for race were collected. However, although there is a focus on demographic variables, the race variable is not used in the analysis. Another instructive example is that of a study in which race is noted as an important variable in the introduction to the article but is not used in the analyses despite the fact that the study, based on a large national sample, presumably collected data on race (Sawyer 1982). At any rate, no justification is provided for the omission of race from the analysis.

The final column of Table 3 indicates the frequency with which researchers provided some definition for race/ethnicity or some justification for its use in their research. It is important to note that not a single article provided an explicit definition of race, although some defined ethnicity. Overall, the table shows that the definition of race/ethnicity or justification for its use was found in only 13 percent of the studies in the entire time period. About one-third of the articles that contained race/ethnicity between 1971 and 1980 provided a rationale for its inclusion. The rate is substantially

lower for all other time periods. Between 1986 and 1990, only 5 percent of studies using race/ethnicity indicated some clear reason for its use.

However, to the extent that either the discussion of racial differences or the justification for the inclusion of race provides some hint of a working definition that researchers use for race, it appears that most health services researchers use race to refer either to socioeconomic factors or to socio-cultural factors. Race/ethnicity was never used as a proxy for underlying genetic differences. For example, Starfield and Budetti (1985) indicate that nonwhite is used as a proxy for poverty; Grazier et al. (1986) state that race is a measure of "potential earning power and thus of financial risk"; and Anderson (1972) notes that nonwhites are more likely to live in urban areas and to have lower levels of income and occupation than whites.

Even when some justification is provided for the use of race as a variable in research, a good rationale is sometimes lacking. One study, for example, that compared the findings of a household survey to medical records indicated that the data would be examined separately for racial and ethnic groups to assess whether the results were more accurate for one group compared to another (Moore 1975). However, no rationale is provided to explain why the researchers would expect to find differences. At the same time, some researchers do suggest that race/ethnicity may be a proxy for important unmeasured constructs. For example, Bashur, Shannon, and Metzner (1971) note that discrimination is probably related to ethnicity. At the same time, there was no example of a researcher attempting to operationalize these other constructs and assessing their relative contribution to explaining the phenomenon under study.

Table 4 lists specific terms used to refer to race/ethnicity in *HSR*. The bottom half of the table presents selected examples of the terms as they were grouped together in some of the research studies and illustrates some of the difficulties with current usage. The terms race and ethnicity were frequently used interchangeably, and clear distinctions were not made among nationality, race, and ethnicity. As noted earlier, there was no example where an explicit definition of race was given. Definitions of ethnicity tended to be broad and vague and failed to clearly distinguish nationality and ancestry from race. Hetherington and Hopkins (1969), for example, viewed ethnic status as one of several cultural variables. They defined ethnic groups as "cultural groupings in the community that are relatively isolated and thus might be expected to reinforce norms of behavior peculiar to their own members rather than the norms of society at large." Not surprisingly, their operationalization of ethnic groups included a broad category of racial, ethnic and nationality groupings: U.S. white, Canadian, British, Scandinavian, Italian, Russian, Pole, Mexican, Negro.

Table 4: Terms and Word Combinations Used to Refer to Specific Racial/Ethnic Groups in *Health Services Research*, 1966–1990

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White, Non-White;	Hispanic
White, Negro, Other;	Mexican-American
Caucasian, Non-Caucasian;	Spanish-American
White, Black, Other;	Spanish Speaking
Anglo	Latino Heritage
Black, All Other Races;	Spanish Surname
Native American;	Latino
	Majority

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- White, Black, Asian, All Others;
- Hispanic of Mexican Origin or Descent;
- American Indian, Oriental, Other, Race Not Identified;
- White Not Hispanic, Black Not Hispanic, Asian and Other Not Hispanic, Hispanic, All Other;
- U.S. White, Canadian, British, Scandinavian, Italian, Russian, Poles, Mexican, Negro and Oriental;
- Negro (Negro, Mixed Negro and White, Mixed Negro and Indian Descent), Other Non-White Races (American Indians, Chinese, Japanese, Filipinos, Koreans, Asian Indians, and Malaysians)

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In another study, the sample was divided into two ethnic groups: (1) majority; (2) black and Spanish speaking (Fleming 1981). An instructive example is that of Wolf (1978). This researcher viewed ethnicity as separate from race, and discussed the two concepts under separate headings. The study indicated that ethnicity refers to “group identification by country of birth or parents’ country of birth,” but provided no definition for race.

Another article delineated the country of origin of physicians (Canadians, Filipinos, and South Koreans) but used no specific racial/ethnic code words to refer to those categories (Mick and Worobey 1986). This was one of only a few articles in *Health Services Research* that dealt with medical professionals. These tended not to note the race of the providers described. Thus, the use of race as a variable is more common in studies of clients than in research on providers.

Researchers did not always identify specific racial/ethnic groupings when the concept of race/ethnicity was invoked. Several articles indicated that the results were adjusted for race or ethnicity, but provided no further specification of how the variable was operationalized (for example, Davies, Weir, Brook, et al. 1986; Keeler, Sloss, Brook, et al. 1987; Grazier et al. 1986). Similarly, Jette, Cummings, Brock, et al. (1981) indicated that the two samples used in their study were similar with respect to race, but no

further description was given to indicate how race was measured or the actual racial distribution.

Table 5 provides information on the ways in which race/ethnicity was used in the 121 *HSR* studies that included a term for race. Race/ethnicity was used in one of three ways. First, in 51 percent of the articles over the entire period, race/ethnicity was invoked to provide some description of the sociodemographic breakdown of the sample or study population. The use of race for description was at its highest level (60 percent) from 1966 through 1970, and at its lowest level (36 percent) during the next five-year period. Second, race was used even more frequently (58 percent) to adjust or stratify the results in multivariate analyses. In most of these studies race was not a central focus of the analysis, but the researchers viewed race/ethnicity as an important background variable that the results must be controlled for. The use of race for adjustment was highest during the 1971–1975 volume years, and in the most recent period (1986–1990), two-thirds of the studies using a race variable included it for adjustment. Third, in two of the studies where a term for race/ethnicity was used, it was employed in the selection of the sample to include one racial/ethnic group, and to exclude others.

## DISCUSSION

The analyses document that race is routinely and widely used in the health services research literature. They also highlight the need for more careful attention to the conceptualization and measurement of race. Using race only as an afterthought or in a mechanical and atheoretical manner, or both, does not shed any light on the ways in which racial differences are built into the institutions of society, and serves only to perpetuate the distortion of social reality. There is need for a deliberate, purposeful, theoretically informed explication of race. Race is a gross indicator of distinctive histories and

Table 5: Percentage of Studies Referring to Race/Ethnicity in *Health Services Research*, 1966–1990, That Used Race/Ethnicity to Describe the Sample and to Adjust or Stratify the Results

<i>Time Period</i>	<i>Description</i>	<i>Adjustment</i>
1966–1970	60.0	40.0
1971–1975	36.4	81.8
1976–1980	55.0	45.0
1981–1985	42.9	42.9
1986–1990	54.2	66.1
Total	51.2	57.9



specific conditions of life that bear on access to health services and patterns of medical care utilization. Understanding these differences requires more information than is usually collected either by the federal health agencies or by most researchers.

Race is strongly correlated with socioeconomic status (SES), and many health services researchers see race as a proxy for SES. While race and SES do overlap, the two concepts are not interchangeable. For example, race is strongly related to poverty, but two-thirds of African Americans are not poor and two-thirds of the poor in the United States are white. In general, SES is a stronger predictor of health-related outcomes than race, but race tends to have effects independent of SES. Whenever possible, the sampling of minority populations should ensure that both low and high SES groups are included so that researchers can begin to tease out the effects of socioeconomic position from those of race. Race is an indicator of more than SES, and merely controlling for SES does not shed light on the structures and processes that may be responsible for the observed racial differences.

A given SES indicator may not even be equivalent across race (King and Williams, *in press*). Low SES blacks, for example, experience higher levels of some stressors such as crime, unemployment, and marital disruption than their white peers. Employed blacks are more likely than whites to be exposed to occupational hazards and carcinogens even after controlling for job experience and education (Robinson 1984). In addition, for a given level of education blacks receive less income than whites (Jaynes and Williams 1989), and because of higher costs of food (Alexis et al. 1980) and housing (Cooper 1984), blacks frequently obtain less purchasing power for a given level of income than whites. Racial differences in wealth are even more striking than those for income. Blacks have less valuable homes and less housing equity than whites (Parcel 1982), and they pay higher lending rates for mortgages (Pol, Guy, and Bush 1982). Thus, a given SES indicator may differ in social and material consequences between blacks and whites.

In addition to being associated with SES, race is a determinant of the experience of racial discrimination. Moreover, the experience of racial discrimination is not uniform within a given racial category. One recent study documented that darker-skinned blacks in the United States are twice as likely to experience racial discrimination as their lighter-skinned peers (Keith and Herring 1991). In color-conscious societies, the struggle to obtain and maintain desirable resources is more acute for darker-skinned blacks than for their lighter-skinned counterparts (Dressler 1991). Thus, darker skin color appears to be a social characteristic predictive of less access to economic and social resources among lower SES persons.

Consistent with this viewpoint, one recent study of African Americans documented that skin color interacts with SES to produce higher rates of

blood pressure among darker-skinned blacks. At low levels of SES, blood pressure was higher in darker persons, but skin color was unrelated to blood pressure for high SES blacks (Klag, Whelton, Coresh, et al. 1991). Given the growing evidence of pervasive racial discrimination in medical care (Council on Ethical and Judicial Affairs 1990; Funkhouser and Moser 1990), health services researchers need to give more systematic attention to its conceptualization and measurement, and to the assessment of its impact on the utilization of health care.

These skin color differences highlight the fact that heterogeneity exists within all racial groups, and along a variety of dimensions. Researchers should therefore, as far as possible, avoid conglomerate terms. This is especially true for research on Hispanics, Asian Americans, and Native Americans. The specific nationality group should be identified. It has been recommended that, in the case of Hispanics, items such as birthplace, country of origin, recency of immigration, language facility, and acculturation are important characteristics that should be routinely assessed (Yankauer 1987; Hayes-Bautista and Chapa 1987). More generally, researchers must make a more concerted effort to understand more fully the historic and contemporary experiences of the particular population or group under study and to place the analyses of health-related behavior within this larger context.

There are serious reliability and validity problems with regard to race/ethnicity in currently available health data (Hahn 1992; Yu and Liu 1992). Further, the need for more accurate definitions of racial and ethnic status is likely to increase in the future as efforts are made to monitor the differential impact of health policy changes and system reform on population subgroups. Health care reform, with its likely inclusion of more explicit attempts at rationing care and evaluating consumer choice, will require increased attention to analyzing equity issues in health care delivery and health outcomes. Similarly, measuring changes in health status indicators by race/ethnicity is an integral part of major health planning initiatives such as Healthy People 2000. Healthy People 2000 is a national initiative, based on current health statistics, that has defined a set of measurable health targets to be achieved by the year 2000. It is focused on improving health and addresses the prevention of major chronic illnesses, injuries, and infectious diseases. Evaluating the success of such efforts is contingent on accurate racial/ethnic classification.

The editorial process plays a key gatekeeping role in the creation of scientific information. It can play a major role in improving the ways in which researchers use race and ethnicity. First, editorials can educate the research community regarding appropriate and inappropriate uses of race. Second, since most researchers are responsive to directives from editors, editorial guidelines could quickly transform current uses of the race construct.

For example, editors could insist that researchers always justify the inclusion of a racial/ethnic variable in their analyses.

Third, at a minimum, editors can require that researchers always report whether race was assessed by respondent self-report, proxy report, extraction from records, or direct observation. It is instructive that in the studies reviewed, no researchers bothered to specify how race was ascertained. There may be substantial differences between respondent reports of race and interviewer assessment of race. In one study where this issue was addressed, 6 percent of persons who identified themselves as black were coded as white by interviewers, while 32 percent of self-identified Asians and 70 percent of self-identified Native Americans were coded as white or black (Hahn 1992).

Much research on health services utilization focuses on selectively narrow aspects of individuals' lives without attending to the ways in which both subjective reality and the objective conditions of life are shaped by larger social forces. Beliefs and behavior related to the utilization of health services cannot be viewed as autonomous individual factors unrelated to living and working conditions and independent of the broader social and political order. There is a cultural aspect to race, but culture does not develop in a vacuum. It is a response of social groups to distinct historical and contemporary experiences. Moreover, culture is not static. It responds and adapts to a changing environment.

Researchers must give more explicit attention to the social, economic, and political forces that constrain the lives of the participants in their research studies. The collection of health data in a community study, for example, should be combined with an understanding of the social and economic structure of that community and the ways in which these conditions shape the values and behaviors of social groups (Williams 1991). Research that will advance our understanding of race in health must seek to identify the ways in which socioeconomic position, cultural factors, and racial discrimination shape the daily realities and experiences of participants in research studies, and give rise to distinctive patterns of health behavior.

## ACKNOWLEDGMENTS

I wish to thank Roxane Lacy and Vanessa Miller for assistance with the research, Ann Fitzpatrick and Molly Olsen for preparing the manuscript, and the anonymous reviewers for helpful comments on an earlier version of this article.

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